

CLAIMS

1. A cleaning apparatus for cleaning a member used in the semiconductor field comprising: one nozzle or plural nozzles; and a jet
5 mechanism for jetting a mist-like cleaning liquid with a high pressure from the one nozzle or the plural nozzles to the member to be cleaned.
2. The cleaning apparatus according to claim 1, wherein the member is cleaned with the nozzles disposed in directions upward and downward.
3. The cleaning apparatus according to claim 1 or 2, wherein particle
10 size of the jetted mist-like cleaning liquid is 100 μm or less.
4. The cleaning apparatus according to any of claims 1 to 3, wherein a pressure of the jetted mist-like cleaning liquid is in the range of from 0.2 to 0.4 MPa.
5. The cleaning apparatus according to any of claims 1 to 4, wherein
15 the mist-like cleaning liquid is jetted in such a way that a gas is mixed into the cleaning liquid in a liquid state.
6. The cleaning apparatus according to any of claims 1 to 5, wherein the cleaning liquid is pure water added with surfactant.
7. The cleaning apparatus according to any of claims 1 to 5, wherein
20 the cleaning liquid is pure water.
8. A cleaning system for cleaning a member used in the semiconductor field comprising: a loader section for setting the member to be cleaned; an unloader section for collecting the member; and a transport stage for continuously transporting the member from the loader section to the
25 unloader section, wherein a cleaning section for cleaning the member with a

mist-like cleaning liquid is provided on the transport stage.

9. The cleaning system according to claim 8, wherein the cleaning section has an outer wall in the shape of a tunnel.

10. A cleaning system, wherein the cleaning section is constituted of the
5 cleaning apparatus according to any of claims 1 to 7.

11. The cleaning system according to any of claims 8 to 10, wherein a transport stage for continuously transporting the member to be cleaned from the loader section to the unloader section is a conveyor type transport apparatus.

10 12. The cleaning system according to any of claims 8 to 11, wherein an air curtain is provided between the loader section and the cleaning section.

13. The cleaning system according to any of claims 8 to 12, wherein plural cleaning sections for cleaning the members with the mist-like cleaning liquid are consecutively disposed.

15 14. The cleaning system according to claim 13, wherein the plural cleaning sections include at least a precleaning section for cleaning the member with pure water, a chemical solution cleaning section for cleaning the member with a chemical solution, and a rinse section.

15. The cleaning system according to claim 14, wherein as the cleaning
20 liquid supplied in the precleaning section, the cleaning liquid used in the rinse section is used.

16. The cleaning system according to any of claims 8 to 15, wherein a water curtain is provided after the cleaning section.

17 The cleaning system according to any of claims 8 to 16, wherein a
25 drying section removing a liquid attached to the member to be cleaned by air

is installed after the member passes through the cleaning section.

18. A cleaning method cleaning a member used in the semiconductor field, wherein a cleaning liquid with a small mist particle size is blown to a member to be cleaned under a high pressure to thereby clean the member.

5 19. The cleaning method according to claim 18, wherein the particle size of the mist-like cleaning liquid having small particle size is 100 μm or less.

20. The cleaning method according to claim 18 or 19, wherein a pressure under which the mist-like cleaning liquid having small particle size is blown
10 is in the range of from 0.2 to 0.4 MPa.

21. The cleaning method according to any of claims 18 to 20, wherein the member to be cleaned is a wafer accommodating container for accommodating semiconductor wafers.

22. The cleaning method according to any of claims 18 to 21, wherein
15 particles with a size of 0.5 μm or less attached to the member to be cleaned are removed.

23. The cleaning method according to any of claims 18 to 22, wherein with the cleaning system according to claim 8, the member is transported by the transport stage, and is cleaned in the cleaning section.